CONTINENTAL DRIFT IN THE TREATMENT OF DOMINANT FIRMS: 
ARTICLE 102 TFEU IN CONTRAST TO § 2 SHERMAN ACT

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The policing of significant marker power remains one of the largest areas of debate in comparative competition law. While the two leading systems, US antitrust law and EU competition law, both originate in the recognition of a need to control monopoly market power, they were set on different tectonic plates that drifted their own individual paths. The interpretation and application of both §2 of the Sherman Act and Article 102 of the TFEU have been reviewed over the years. Recently, a number of leading cases have been issued on both sides of the Atlantic. While in the past decade the two systems have converged on a focus on exclusionary conduct, a number of fundamental underlying differences remain. On the fault lines, there is potential for tension, as well as motion.

The aim of this chapter is to take stock of the debate, at a fundamental level. Our contribution is written from a European perspective, that is, we take US antitrust law as granted and we seek to explain particular aspects of EU competition law against it. Without going in the detail of the laws, we identify a number of distinctive features of Article 102, both in wording and interpretation, in Section 1. We subsequently discuss three lines of argument to explain these differences. The first one, considered in Section 2, is traditionally put forward: the interpretation of Article 102 reflects the influence of the ordo-liberal school of thought on EU competition law. We will provide some new insights from this point of view. The second, more contemporary line of argument derives from the observation that competition law enforcement is fallible and is primarily institutional, as explained in Section 3. The third argument, set out in Section 4, introduces dynamic elements into the analysis, whereby the interpretation of Article 102 would reflect a specifically European view of innovation policy. In Section 5, we return to the underutilized EU category of exploitative abuses and argue that economic techniques developed in the context of damages litigation could open it up for future enforcement in a way that would be in line with ordo-liberal principles. We conclude in Section 6.

1. Distinctive features in the wording and interpretation of Article 102 TFEU

1.1. Limited differences in wording

The core parts of the two respective legal texts compare as follows:

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Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony [...].

Article 102 TFEU
Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States [...].

While § 2 of the Sherman Act was enacted in 1890 as part of criminal law, with monopolization being classified as a felony, Article 102 TFEU was inspired by European administrative laws and inserted in the international Treaty of Rome in 1957.¹

1.1.1 “Monopolization” versus “abuse”: convergence on exclusionary behavior

At first glance, ‘monopolization’ and ‘abuse’ seem different concepts. With the term ‘monopolization’, § 2 would focus on how a monopoly position is obtained or maintained, and not so much on the actions of the monopolist once that position has been achieved, whereas Article 102 would not pay attention so much to how a dominant position has arisen, but would instead police particular abusive actions of the dominant firm.²

While this distinction appears to be supported by the respective wording of these provisions, it is nowhere near as sharp as it is made out to be, once case law is taken into account. Over time, as case-law and literature accumulated, these two provisions have arguably evolved away from what some presented as their original intent, and converged in their coverage. § 2 was used in early cases to attack market power directly,³ yet it was reframed subsequently. Similarly, in the early days of Article 102, part of the commentary argued that the provision was aimed at policing the abusive exploitation of market power only.⁴ However, it suffices to look at two recent administrative statements on these respective provisions – the US DOJ’s Competition and Monopoly: Single-Firm Conduct under Section 2 of the Sherman Act⁵ and the

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¹ As a consequence, violations carry different types of sanctions, with prison sentences being unavailable at the European level – as opposed to the level of individual Member States, some of which have adopted criminal sanctions for individuals in recent years, albeit first and foremost for cartel infringements, not abuses of dominance. See K. Cseres, M.P. Schinkel and F.O.W, Vogelaar (eds.), Criminalization of Competition Law Enforcement: Economic and Legal Implications for the EU Member States (London: Edward Elgar, 2006).
³ Most famously in Standard Oil v. US 221 US 1 (1911).
⁵ US Department of Justice, Competition and Monopoly: Single-Firm Conduct under Section 2 of the Sherman Act (2008). This document was criticized as an attempt by the then Republican administration to enshrine a very hands-off interpretation of §2. It was subsequently withdrawn by the Department of Justice, with the change in administration in 2009. Nevertheless, on many points, certainly this one, it is representative of the state of the law under § 2 of the Sherman Act.
European Commission’s *Guidance on the Commission’s enforcement priorities in applying Article [102 TFEU] to abusive exclusionary conduct by dominant undertakings* – to see that as they are construed now, both provisions are primarily used to deal with exclusionary behavior on the part of firms holding significant market power. Their application requires a showing of both significant market power (monopoly power or dominance, respectively) and of exclusionary conduct (or abuse, in EU competition law).

Conceptually, under EU law, an undertaking is dominant if it can behave “to an appreciable extent independently of its competitors, customers and ultimately of its consumer.” The prevailing measure for market power in both systems is market share in the relevant market. Under EU law, a (combined) market share of 38% can be sufficient to raise the rebuttable presumption of a dominant position, whereas in the US interventions based on § 2 will usually require a market share of over 50%.

### 1.1.2. An EU outlier: exploitative abuses

While the main focus of both § 2 and Article 102 has therefore shifted over time to lie on exclusionary abuses of market power, Article 102 TFEU continues to harbor an outlier, namely the notion of “exploitative abuses”. This is the use of dominance to extract rents from customers, by way of excessive pricing, for instance. § 2 of the Sherman Act does not extend to exploitative abuses, as the Supreme Court most emphatically reaffirmed in *Trinko*. As the Supreme Court conceives it, exploitative behavior is quite the opposite from monopolization. After all, high prices would rather make customers look for alternatives and attract competitors to the market in question.

The prohibition of exploitative abuses under Article 102 has hardly been enforced, with only a handful of cases in which it was the main finding of an infringement. It is linked with the specificities of Article 102, as stated above, in ways that will be explained later in this chapter.

### 1.1.3. A US outlier: attempted monopolization

For § 2 of the Sherman Act, the outlier is “attempted monopolization”, which is construed along similar lines as monopolization, yet does not require the violation to have been successful in realizing its objective. Establishing attempted monopolization requires proof that the defendant's intended to destroy competition or

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8 In the Guidance paper, supra, note 6, the Commission puts forward a lower threshold of 40% market share.

9 Department of Justice, supra, note 5 at 21-22.

10 As evidenced for instance in Article 102(2)a) TFEU: “directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions”.


12 *Infra*, heading 5.

13 Differences are minor: see supra, note 5 at p. 6.
build monopoly, which resulted in a dangerous probability of achieving monopoly power.\footnote{See P. Areeda and H. Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application (New York: Aspen) ¶805b1 at 340.} However, courts have been reluctant to find intent, and only few cases were tried, none in recent years.\footnote{See the discussion in Department of Justice, supra, note 5 at 6.}

Together, these similarities and differences can be illustrated in the Venn diagram below. Note that the outlier categories are smaller even, in terms of cases tried, than they appear.

Despite convergence to a large overlap between the two provisions in terms of substantive coverage on exclusionary behavior, their interpretation and application shows a number of important divergences.

1.2 Essential differences in interpretation

Both Section 2 and Article 102 are brief and generally formulated, leaving ample room for interpretation. Famously, Frank Easterbrook wrote:

“Back in 1890 Senator Sherman and colleagues protested the Sugar Trust and other malefactors and told the judiciary to do something about it. They weren’t sure just what. Their stature does not contain a program; it is instead a blank check.”\footnote{F.H. Easterbrook, “Workable Antitrust Policy” (1986) 84 Mich L Rev 1696 at 1702.}

Only in case law did their interpretation emerge. Likewise have the Articles 81 and 82 of the Treaty of Rome, apart from twice a renumbering, had to go through a long process of case law developments to harden in their interpretation. As one of major figures in the development of EU competition law, Ernst-Joachim Mestmäcker, stated:

“Politicians and legislators love the ambivalence of final purposes, leaving their determination to the ensuing political or legal process. The EC’s ‘founding fathers’ were particularly resourceful in this respect. Competition rules prove the point. The drafts of the Treaty charged the European Court and
the EC Commission with the task of injecting into deliberately general provisions the light of precise purpose and meaning.”

In this subsection, we discuss four distinctive features of EU competition law, arising from the Commission decision practice and the case-law of the European courts.

1.2.1. The special responsibility of the dominant firm

Since the early years of the Sherman Act, US courts applied § 2 with a view to avoiding, to the greatest extent possible, restrictions on the commercial freedom of firms, even if they hold monopoly power. In 1919 already, in *Colgate*, the Supreme Court held that, “[i]n the absence of any purpose to create or maintain a monopoly, the act does not restrict the long recognized right of trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal…”

More recently, in *Trinko* and *Linkline*, the Supreme Court reaffirmed this stance forcefully. In *Linkline*, after having cited *Colgate*, the Court presented the scope of § 2 in the following terms: “But there are rare instances in which a dominant firm may incur antitrust liability for purely unilateral conduct.”

The theory underpinning the US approach is well set out by Easterbrook. In a number of circumstances, it is beneficial for the economy and for consumers if firms holding monopoly power compete hard with other firms. In other circumstances, the conduct of those firms can be exclusionary. Since it is hard to distinguish between competitive and exclusionary conduct, it is better to allow firms to compete hard and put the burden upon authorities, in exceptional circumstances, to show that the conduct was in fact exclusionary and in breach of § 2.

In contrast, the European Courts and the European Commission, in their interpretation of Article 102 TFEU, do not go out from the assumption that firms holding a dominant position can compete as any other firm would. Rather, the case law and decision practice under Article 102 TFEU constantly and consistently refers to the “special responsibility of the dominant firm not to allow its conduct to impair genuine undistorted competition on the common market”.

This statement was made in one of the early Article 102 TFEU cases: ECJ, Case 322/81, *Michelin v. Commission* [1983] ECR 3461 at para. 57 and repeated ever since.

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19 *Trinko*, supra, note 11 at 407, as quoted infra. See the quote made infra, heading 4.
20 *Pacific Bell Telephone v. Linkline Communications*, 129 S.Ct. 1109 at 1118 (2009).
22 This statement was made in one of the early Article 102 TFEU cases: ECJ, Case 322/81, *Michelin v. Commission* [1983] ECR 3461 at para. 57 and repeated ever since.
23 See European Commission, *DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses* (2005); Guidance paper, supra, note 6 at para. 1.
1.2.2 Competition on the merits

Under § 2 of the Sherman Act, there is a notion that some means of competition are allowable, and others will breach the Act. As the Supreme Court put it in *US v. Grinnell:*\(^{24}\) “The offense of monopoly under § 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.”

Under EU law, that distinction is drawn more sharply. Dominant firms are allowed to enter into ‘competition on the merits’, but they must abstain from other forms of competition, which are presumably ‘unmeritorious’. Recently, in *Post Danmark,* the ECJ summed up the case-law as follows:\(^{25}\)

> “It is in no way the purpose of Article [102 TFEU] to prevent an undertaking from acquiring, on its own merits, the dominant position on a market. […]

> Competition on the merits may, by definition, lead to the departure from the market or the marginalisation of competitors that are less efficient and so less attractive to consumers from the point of view of, among other things, price, choice, quality or innovation. […]

> Article [102 TFEU] applies, in particular, to the conduct of a dominant undertaking that, through recourse to methods different from those governing normal competition on the basis of the performance of commercial operators, has the effect, to the detriment of consumers, of hindering the maintenance of the degree of competition existing in the market or the growth of that competition.”

Hence, while both systems thus recognize a category of meritorious competition to which the prohibition should not apply, there is a contrast between the US and EU positions. Leading US authorities are reserved towards active enforcement, out of recognition of the practical difficulty in telling anti- from pro-competitive conduct. EU law entertains a firm belief in the distinction between competition on the merits/performance competition and other forms of competition, and this distinction is enforced unreservedly.

1.2.3 Protection of the competitive process

When dominant firms inflict *injury on the competitive process* as such, this is already sufficient to trigger the application of Article 102 TFEU, even in the absence of concrete evidence of consumer harm. As the Court of Justice repeatedly stated, “Article 102 TFEU must be interpreted as referring not only to practices which may cause damage to consumers directly, but also to those which are detrimental to them through their impact on competition.”\(^{26}\)

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\(^{26}\) Ibid. at para. 20, referring to ECJ, Case C-52/09 *TeliaSonera Sverige* [2011] ECR I-527 at para. 24 and to earlier cases.
In the eyes of many critics, especially from the USA, EU competition law is then protecting competitors, not competition. In US law, as the Supreme Court put it, “[i]t is axiomatic that the antitrust laws were passed for ‘the protection of competition, not competitors’.”\textsuperscript{27} Instead, as Easterbrook concluded,\textsuperscript{28} “However you slice the legislative history, the dominant theme is the protection of consumers from overcharges.” Indeed, the US now has – by all accounts – a strong focus on consumer welfare as the ultimate objective, whereas the EU still protects the competitive process, irrespective of consumer welfare considerations.

In a perceptive analysis, Eleanor Fox suggests that, beyond the rhetoric, the difference between US and EU law relates to the grey zone of conduct which is not clearly output-limiting but nevertheless would injure the competitive process. US antitrust law does not thread into that grey zone, for fear of error, which would lead to prohibiting pro-competitive conduct. Under EU competition law, in contrast, authorities do not hesitate to prosecute conduct falling into that grey zone, despite the error risk.\textsuperscript{29}

### 1.3. Conclusion

In this section, we have inventoried four distinctive features of EU competition law, as compared to US law. A first feature appears from the text of Article 102 TFEU itself, namely the possibility to prosecute exploitative abuses of dominant position. The three other features arise from the interpretation of Article 102. Dominant firms are put under a special responsibility. A strong distinction is drawn between competition on the merits and impermissible forms of competition in which dominant firms might engage. The protection of the competitive process is emphasized, even in the absence of concrete evidence of consumer harm.

Our aim is not to justify of rebut these stated differences, but rather to provide possible explanations for them, so as to shed some light on the reasons why EU and US law would differ when it comes to the treatment of dominant firms. In the next sections, we start in Section 2 by revisiting the traditional explanation for these features, i.e. the influence of ordo-liberal thought on EU competition law. We find that ordo-liberalism provides an explanation for the latter three features, albeit not as strong as is often assumed. In Section 3, we then go on to examine the institutional context of EU law enforcement, finding there a solid explanation for the special responsibility of dominant firms. In Section 4, we try to introduce the insights from the literature on innovation into the analysis, leading to a stronger justification for the protection of the competitive process and the emphasis on competition on the merits. This leads us to come back to exploitative abuses in Section 5, where we argue that this is a weak spot in ordo-liberalism, which can be remedied with the help of contemporary advances in economics.

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\textsuperscript{28} Easterbrook, *supra*, note 16 at 1703.

2. The influence of ordo-liberalism on Article 102 TFEU

A number of scholars have linked distinctive features of EU competition law to the influence of ordo-liberalism (the “Freiburg School”), sometimes in a very critical way. Accordingly, a first line of explanation for the differences identified above could be found in ordo-liberal thinking. It is beyond the scope of this contribution to review ordo-liberalism in detail. Nevertheless, since the debate on the legacy of ordo-liberalism in EU competition policy has been revived with the Guidance Paper of 2007 and since the original sources are not always accessible, it seems appropriate to state our views here, based on our reading of the original sources.

2.1. Ordo-liberalism as a general legal and economic theory

As a starting point, it must be noted that ordo-liberalism is much broader than competition policy. It is a school of economic thought, which covers most areas of economic and social policy. Born in the 1930s and becoming influential after the war, ordo-liberalism was profoundly influenced by the repeated failures of German economic policy in the first-half of the 20th century. Ordo-liberals were convinced that the market economy and central planning models were so antithetical that they could not be successfully mixed. Central planning being unsustainable, ordo-liberals preferred a market economy. Yet the experience with laissez-faire policies of the turn of the 20th century showed that a market economy left on its own would ultimately

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32 See Mestmäcker, supra, note 17.

33 There is no shortage of ordo-liberal scholarship, but most of it is in German. There is disagreement in the German-language literature about whether English-language accounts of ordo-liberalism are accurate: see for instance the remarks of Mestmäcker, ibid. at 39-44.


35 For the purposes of this short discussion, the authors generally associated with ordo-liberalism (including W. Eucken and F. Böhm) will be regrouped under the name ‘ordo-liberals’. As in any school of thought, there are differences amongst the various authors, but we chose not to mention them unless they are relevant for the purposes of the discussion.

36 Verkehrswirtschaft as called by Eucken, Die Grundlagen der Nationalökonomie, 5th ed. (Godesberg: Küpper, 1947) [hereinafter Eucken, Grundlagen].

produce a concentration of economic power in private hands, with the ensuing nefarious consequences.\textsuperscript{38}

In order to solve that conundrum, ordo-liberals repudiated the methods of the German historicist school prevailing until then in German economics.\textsuperscript{39} In his macro-economic textbook of the 1930s, Eucken advocated a more scientific and theoretical approach to economics.\textsuperscript{40} In that sense, ordo-liberals were in step with the times, and indeed ordo-liberal writings are not insular: they frequently refer to and engage with contemporary Anglo-American authors. Still, the main theorists of ordo-liberalism wrote in the 1930s to 1950s, at a time where economics was not widely formalized. Their work follows a deductive, logical analytic method, which is not unlike that of legal scholars. It is not surprising then that lawyers and economists worked very closely within the Freiburg School.

Indeed, at its core, ordo-liberalism blends law and economics in a liberal project. A liberal polity is characterized by the freedom and autonomy\textsuperscript{41} its members enjoy, in a constitutional democracy under the rule of law. Such political freedom must be extended to the economic sphere as well, i.e. economic actors, producers and suppliers, must enjoy the freedom to make economic choices.\textsuperscript{42} This dovetails with an economic policy centered on free markets and competition. Compared to this striking and distinctive link between law and economics, ordo-liberal welfare analysis, while not absent, is fairly conventional: competition in a free market economy is best able to effect the coordination of individual efforts (allocative efficiency), and prices play an essential role in conveying information as between economic actors.\textsuperscript{43}

\section*{2.2. The threat from economic power, public or private}

In the eyes of ordo-liberals, economic power forms the main threat to this free economic order based on markets and competition.\textsuperscript{44} Economic power leads to coercion, which deprives economic actors of their freedom. The ideal to be pursued by economic policy is therefore a free market without economic power, i.e. a market where the only possible form of competition is ‘competition on the merits’ (\textit{Leistungswettbewerb}).\textsuperscript{45} Eucken equates the absence of economic power with ‘perfect competition’ (\textit{vollständige Konkurrenz}), a very consequential link, as we will see below.\textsuperscript{46}

\textsuperscript{39} W. Eucken, “Die Entwicklung des ökonomischen Denkens”, in Eucken, ibid., 65.
\textsuperscript{40} Eucken, \textit{Grundlagen}, supra, note 36 at 35-63.
\textsuperscript{41} In the sense of self-determination (\textit{Selbstbestimmung}).
\textsuperscript{42} Eucken, \textit{Grundsätze}, supra, note 36 at 175-179.
\textsuperscript{43} Eucken, ibid. at 245-250.
\textsuperscript{44} In line with the term used in ordo-liberal writings (\textit{wirtschaftliche Macht}), we use ‘economic power’. This term is used by and large with the same meaning as ‘market power’ in contemporary competition law and economics.
\textsuperscript{45} Eucken, \textit{Grundsätze}, supra, note 34 at 246-247.
\textsuperscript{46} It has been argued that \textit{vollständige Konkurrenz} should not necessarily be translated as ‘perfect competition’ (see for instance Möschel, supra, note 31 at 4). Yet it is clear from Eucken’s work that he was aware of the classical theory of market structure; he lays in out in a detailed table, ibid., 22 (and in ever greater detail in Eucken, \textit{Grundlagen}, supra, note 36 at 146-177). There he renders ‘perfect competition’ (i.e. competition on both supply and demand) as ‘\textit{vollständige Konkurrenz}’. 
Economic power can be wielded by the State, in centrally planned economies. As stated above, ordo-liberals reject this model, and accordingly ordo-liberal thought – as one form of liberal thought – assigns a limited role to the State.\textsuperscript{47}

However, ordo-liberals are equally concerned about coercive economic power exerted by private actors.\textsuperscript{48} As Böhm points out, firms have an incentive to seek market power, and once they hold it, to use it to distort competition for their benefit.\textsuperscript{49} For ordo-liberals, free competitive markets are a fragile good, threatened as they are by economic power, be it in public or private hands. As Eucken puts it, “the problem of economic power has always existed, yet since the Industrial Revolution it has taken a new dimension. The Industrial Revolution ushered in the era of proliferating economic power…: the power of individual firms, of trusts, of cartels, central planning offices or unions.”\textsuperscript{50}

For ordo-liberals, therefore, protecting the free market economy from economic power held in private hands is crucial. They are very dismissive of the historical experience of the early 20\textsuperscript{th} century, where the State sought to intervene via regulatory and other mechanisms in order to control private economic power: these attempts only compounded private power with State power, leading towards central planning, with disastrous consequences.\textsuperscript{51} At the same time, the use of State power is the only avenue to confront private economic power. Competition law becomes the vehicle whereby the contradiction is solved, and State power can be wielded against private economic power without endangering the free market economy.

2.3. \textit{Competition law as a solution to the problem of economic power}

Competition law is therefore a key element of ordo-liberal thought and yet, given the all-encompassing nature of the basic ordo-liberal works, it remains summarily dealt with.\textsuperscript{52} The key propositions advanced by Eucken and Böhm are the following.

(1) Cartels – to the extent other elements of economic policy have not already made them unworkable – must be made illegal as such and harshly prosecuted. The fight against cartels cannot suffice in and of itself to protect the free market economy, since economic power can also arise from a single firm.

(2) Competition law must attack economic power at the root and dissolve it; a mere policy of policing abuses of economic power will be ineffective.

(3) In some limited cases, monopolies are unavoidable.\textsuperscript{53} In such cases, monopolies must be placed under the surveillance of the State. The aim of

\textsuperscript{47} See Eucken, \textit{Grundsätze}, ibid. at 241 ff. for prescriptions concerning private law, monetary policy and social policy.

\textsuperscript{48} For a crisp yet complete explanation, see W. Eucken, “Das Problem der wirtschaftlichen Macht”, in Eucken, \textit{Lectures}, supra, note 38, 9-22.


\textsuperscript{50} Eucken, \textit{Grundsätze}, supra, note 34, 175.

\textsuperscript{51} Eucken, \textit{supra}, note 38.

\textsuperscript{52} The following paragraph is based on Eucken, \textit{Grundsätze}, supra, note 34 at 291-300 and Böhm, \textit{supra}, note 49 at 74-79.
such supervision is to bring monopolies to behave ‘as if’ they were in a perfectly competitive environment.

(4) In order to avoid a repeat of the historical experience, State control over unavoidable monopolies should be exerted via an independent monopoly supervisory office, and should be carried out strictly in accordance with the law. The applicable law should be crisp and clear, so as to leave no discretion to the authority and avoid capture by private interests (as had occurred in the 1920s and 1930s).

2.4. Ordo-liberalism and Article 102 TFEU

Seen against that background, Article 102 TFEU cannot be considered as a straightforward implementation of ordo-liberal thought.\(^{54}\) It does not prohibit economic power as such, nor does it empower the Commission to dismantle firms holding economic power; rather it introduces a system of control on abuses of dominant position, the very system which was found ineffective by Eucken and Böhm. Indeed, it seems that Article 102 TFEU was the result of political bargaining between competing visions, including not only ordo-liberalism, but also the traditional approach to competition law in Europe until then (however limited the experience was), which emphasized the policing of abuses rather than the direct intervention against cartels and monopoly power.\(^{55}\)

So ordo-liberal writers had to adjust to a legal reality where private economic power is policed rather than outright prohibited. In order to see how ordo-liberalism can accommodate that significant departure from their thought, it is interesting to look at the 1958 inaugural lecture of Ernst-Joachim Mestmäcker, a disciple of Franz Böhm and a leading figure in the development of EU competition law, both in theory and in practice.\(^{56}\) This lecture bears on the then new German Competition Act, and its prohibition on abuses of dominant position.\(^{57}\) Mestmäcker expresses its sympathy for US antitrust law (as it then was interpreted), which “gives priority to the dissolution of single monopolistic firms over any attempt to impose upon them obligations to behave properly”.\(^{58}\) In comparison, German law (and EU law) refuses to try to prevent the creation of dominant firms, and instead opts for a prohibition on abuse.\(^{59}\) As Mestmäcker notes, compared to the relative simplicity of the ordo-liberal prescription against market power, the prohibition on abuse of dominance requires first of all a sophisticated definition of dominance, in order to single out the firms

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\(^{53}\) Eucken refers to ‘a small number of cases’ (ibid. at 293, 299). He does not use the term natural monopoly, but he might have had them in mind.


\(^{55}\) Akman, ibid. and Gerber, supra, note 31 at 342-345.

\(^{56}\) E-J. Mestmäcker, Das marktbeherrschende Unternehmen im Recht der Wettbewerbsbeschränkungen (Tübingen: Mohr-Siebeck, 1959). Like many other writings by ordo-liberal scholars, this lecture evidences a very good knowledge of American law and literature.

\(^{57}\) For the purposes of this paper, it can be assumed that the arguments made concerning § 22 of the German Competition Act (Gesetz gegen Wettbewerbsbeschränkungen) would be equally applicable to Article 102 TFEU.

\(^{58}\) Mestmäcker, supra, note 56 at 6. Of course, the interpretation of §2 of the Sherman Act evolved since then; nonetheless, it is striking to see how the interpretation of § 2 in force in the 1950s is perceived to be closer to ordo-liberal thought (!) than the new German law.

\(^{59}\) Ibid. at 6-7.
subject to the prohibition, and then a definition of abuse. As regards the latter, Mestmäcker notes the difficulty of distinguishing abuse from permissible conduct. With the help of ordo-liberal thought, that distinction can be articulated along the lines of the distinction between Leistungswettbewerb (performance competition) and Behinderungswettbewerb (hindrance competition). From that point on, it is only a small step to hold that, since the dominant firm will abuse its position if it engages in hindrance competition, it is under a duty to refrain from such hindrance competition, hence the special responsibility of the dominant firm. Furthermore, it is consistent with ordo-liberal thought to hold that the mere presence of market power weakens fragile markets, thereby heightening that special responsibility.

2.5. Conclusion

Accordingly, even if Article 102 TFEU does not embody the model of direct intervention against market power advocated by ordo-liberals, the distinctive features identified above can nonetheless be traced back to ordo-liberal thought. Such is certainly the case for the focus on the protection of the competitive process, the insistence on competition on the merits and the special responsibility of the dominant firm.

If anything, the main legacy of ordo-liberalism might play out at a deeper level than even the fundamental features of Article 102 TFEU analysis which we have been examining in the previous sections. Ordo-liberalism underlines the fragility of markets, which are vulnerable to both public and private economic power. Underneath most of EU competition law analysis, certainly as far as Article 102 TFEU is concerned, one finds a similar concern for the resilience of competitive markets, or to put it otherwise, a skepticism towards the robustness of markets, a lack of confidence in their ability to self-heal. This basic tenet is rarely expressed, but it is almost always present.

3. Institutional economics and the special responsibility of the firm

As was seen above, the special responsibility of the dominant firm can be derived from ordo-liberal thought, adapted to fit a model of prohibition on abuse of dominance. In this section, we suggest that special responsibility can be explained equally well, if not better, by looking at the institutional context of enforcement, in the light of economic analysis, in particular decision theory.

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60 Ibid. at 8 and ff. The discussion prefigures a number of debates which will subsequently arise in the interpretation of Article 102 TFEU.
61 In the ordo-liberal model (assimilated to the US model), the distinction between structure and conduct is not necessary: ibid. at 17.
62 Ibid. at 17-19.
63 Indeed, even though Eucken advocates the removal of market power pure and simple, he nevertheless discusses at length the various forms which Behinderungswettbewerb can take: Eucken, Grundsätze, supra, note 34 at 294 and ff.
64 As introduced by the ECJ in Michelin, supra, note 22 at para. 57.
65 As the ECJ has held since its judgment of 13 February 1979, Case 85/76, Hoffmann-La Roche v. Commission [1979] ECR 461 at para. 91.
66 Except perhaps in the recurring phrase where the Court states that dominant firms, by their very presence, already weaken the degree of competition in the market (see for instance TeliaSonera, supra, note 26 at para. 27). Interestingly enough, that phrase was not included in the reasoning of the Court in the recent Grand Chamber judgment in Post Danmark, supra, note 25.
3.1. Decision theory in the context of EU competition law

One of the legacies of the Chicago school has been to draw the spotlight on the institutional dimension of competition policy. The work of Easterbrook, in particular, started from the simple observation that authorities do not and cannot possess all the information required to fully understand and analyze the practices at stake in the cases before them.\(^{67}\) Acquiring that information, if at all possible, might involve an excessive expense of time and resources, in relation to the expected gain from the application of competition law. Easterbrook sought to solve that conundrum by introducing error-cost analysis: rules should be designed in such a way as to minimize the error costs and the costs of the enforcement system. Furthermore, to the extent that trade-offs are made, it is preferable to err on the side of allowing anti-competitive practices (Type II error) than of prohibiting innocuous ones (Type I error). In the words of Easterbrook, “[o]ther things equal, we should prefer the error of tolerating questionable conduct, which imposes losses over a part of the range of output, to the error of condemning beneficial conduct, which imposes losses over the whole range of output.”\(^{68}\)

Easterbrook’s analysis rests on the assumption that market forces are sufficiently strong to overcome monopoly power, so that Type II mistakes are self-correcting in the long run.\(^{69}\) It is not unreasonable, however, to hold that monopoly power will not always be dissipated. As was seen above, EU competition policy is based on the assumption that markets are not always self-correcting, and hence that competition policy can be needed to address the consequences of monopoly power. If, for the sake of argument, monopoly power is considered not to be self-correcting, then the cost of Type II errors are likely to be substantial, and the trade-off between Type I and Type II errors is not so simple to make.\(^{70}\) The competition authority will want to take a more interventionist stance, while still minimizing error costs, given information deficiencies on its part.

In that context, a possible solution would be to try to shift the burden of enforcement over to firms. Since firms possess all of the relevant information about their own position and much of the information about the markets on which they evolve, a


\(^{68}\) Ibid. at 16.

\(^{69}\) Ibid. at 15, the idea being that monopoly profits attract entry (as endorsed by the Supreme Court in Trinko, supra, note 11). Alternatively, if market forces do not suffice to dissolve monopoly power, intervention can always take place at a later point in time, when more information is available on the consequences of the impugned conduct. Easterbrook does not give a temporal dimension to his analysis, and in any event he is generally adverse to intervention. A dynamized Easterbrook-like error-type analysis underpins the reasoning of the General Court on the relationship between MCR review and Article 102 TFEU in Case T-80/02, Tetra Laval [2002] ECR II-4519 (upheld by the ECJ in Case C-13/03P, Tetra Laval [2005] ECR I-1113, but with the ECJ disagreeing with the General Court on that very point) and Case T-201/01, General Electric [2005] ECR II-5575.

\(^{70}\) In addition, from the point of view of deterrence, both error types increase the ex ante incentive to breach the competition rules. For Type II errors, this is rather obvious, as antitrust violators can escape penalties with additional profits. In the case of Type I errors, the effect is a little more subtle. Since there is a positive probability of being sanctioned while not having benefited from anticompetitive gains, firms might just as well infringe the laws anyway, in particular when the size of the Type II errors is large enough. See M.P. Schinkel and J. Tuinstra, “Imperfect Competition Law Enforcement” (2006) 24 Int’l J Ind Org 1267.
dominant firm can certainly assess the compatibility of its conduct with Article 102 TFEU with more accurate information than a competition authority.

Self-enforcement of Article 102 TFEU is fraught with risks, however. Firstly, the dominant firm may have no incentive to self-enforce and refuse to do so. Secondly, the dominant firm might itself commit Type I or Type II errors, for it may itself suffer from information deficiency. Thirdly, the dominant firm might entertain an inaccurate view of the ambit of Article 102 TFEU, either interpreting it too narrowly or too broadly, and thereby not reaching the appropriate conclusion as to the legality of its conduct (assessment error). We will explore these three risks and how they can be remedied in the following three subsections.

3.2. Special responsibility as a device to incentivize self-enforcement

The special responsibility of the dominant firm, as set out above, could help in addressing the first risk. It would then imply first and foremost that dominant firms are expected to question their own conduct and contribute in enforcing Article 102 TFEU by refraining from conduct that would infringe that provision. Furthermore, that special responsibility justifies, to some extent, the high fines that are then imposed when the law is actually enforced.

When seen in that way, the special responsibility of the dominant firm is fully consistent with current institutional choices in EU competition policy. With Regulation 1/2003, the enforcement of Article 101 TFEU has been fundamentally modified to bring it from a system of administrative control, via individual and block exemptions under Article 101(3), towards a self-enforcement system, where Article 101(3) TFEU is directly applicable, without any need for a prior decision. Firms are now largely in charge of assessing their behavior against Article 101 TFEU. They must conclude for themselves whether any agreement they enter into would breach Article 101 TFEU, and act accordingly. To be sure, competition authorities are monitoring compliance with Article 101 TFEU and enforcing it; yet despite the decentralization brought about by Regulation 1/2003, it is apparent that public enforcement resources are not sufficient to ensure compliance, certainly not if Article 101 TFEU, much like Article 102, is to have more than a symbolic value. Unless and until private enforcement can compensate for the lack of resources of public enforcers, compliance with Article 101 TFEU therefore depends in large part on firms self-policing their conduct.

Under Article 102 TFEU, the ever-recurring reference to special responsibility would therefore signal to dominant firms that they are expected to contribute to enforcing the law, along the same lines as under Article 101 TFEU. They would comfort the model of administrative control – as opposed to court-centric enforcement, using public or

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71 Or any decision of an association or any conduct which could be construed as a concerted practice.
72 Private plaintiffs also play a role, via claims before national courts (in addition to complaints to competition authorities).
73 If the consensus opinion in the EU were that Article 101 and 102 TFEU were by and large marginal provisions for a largely self-healing competitive market, enforcement issues would be less urgent. However, that is not the consensus opinion, which is probably correct in the context of the EU.
74 Whether it is desirable that private enforcement takes a larger role will not be discussed here.
private plaintiffs – that is now prevalent in the EU for the implementation and application of competition policy.

In this respect, the special responsibility of dominant firms under Article 102 TFEU might find the most meaning when it is explained in institutional terms. Indeed, on substance, the special responsibility does not usually add much to the analysis. Typically, whether the conduct of the dominant firm is abusive or not, does not depend on the special responsibility of the firm. Even though the Commission and the Court almost never fail to mention it, the special responsibility could usually be removed from the reasoning without loss of cogency. When seen as a signal to dominant firms that they are expected to contribute actively to enforcement by self-assessing their conduct, however, it is sensible to mention that special responsibility time and again, to emphasize that dominant firms are expected to internalize the substantive analysis set out by the competition authority.

In fact, viewing the special responsibility of the dominant firm in institutional terms helps to explain two recent cases where such responsibility was more central to the reasoning, namely Deutsche Telekom (price squeeze) and AstraZeneca. In both cases, the Commission faulted the dominant firm for its conduct in regulatory processes, invoking its special responsibility under Article 102 TFEU. In Deutsche Telekom, the German telecommunications regulatory authority had approved a set of wholesale and retail tariffs for DT, which put its competitors in a price squeeze. The Commission found that DT could not rely on the regulatory outcome, and that its special responsibility under competition law dictated that it go back to the authority to petition for new tariffs in order to remove the price squeeze. In AstraZeneca, AZ systematically took the most favorable interpretation possible of medicines regulation, in order to extend its patents to the maximum. The Commission found, here as well, that AZ’s special responsibility should have led it to take a more mainstream interpretation, to avoid excluding potential competitors. While on substance both cases seem to take the special responsibility of the dominant firm very far, from an institutional perspective the reference to the special responsibility underscores that these two dominant firms were bound to continue to self-assess their conduct, even when regulation came in the picture.

3.3. Other risks relating to self-enforcement: information deficiencies in the firm

Nevertheless, as set out above, two other risks associated with self-enforcement by firms remain: errors due to information deficiencies by the firm itself and assessment errors when the firm does not correctly understand the applicable law.

The risk of information deficiency concerns chiefly information on other firms. Indeed while the dominant firm knows more about itself, and about its own conduct, than the competition authority, it may not possess the same level of information as regards rival firms, customers, suppliers, etc. It certainly holds enough information about others to be able to make business decisions, but that might not suffice for the purposes of competition law assessment, for which authorities have a number of

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76 Bordering on bad faith: see AstraZeneca (ECJ), ibid. at para. 74-100.
Under Article 102 TFEU, some features contribute to reducing the risk of information deficiency.

For instance, on pricing matters, the Commission has put forward the As-Efficient-Competitor (AEC) test, whereby the impact of the prices entertained by a dominant firm is assessed by reference to a competitor with the same cost of production as the dominant firm. The AEC has been endorsed by the ECJ, amongst other reasons because it noted that, in practice it allows the dominant firm to assess its pricing against its own information.

Beyond that, in non-pricing cases, the effects-test currently advocated by the Commission could also help in alleviating this risk. In earlier years, a mere potential effect on competition was enough for dominant firm conduct to qualify as abuse. In practice, this meant that since an effect on competition could always be conceived, the form of conduct became determinative. The Commission is now committed to carrying out a real effects analysis, which looks at likely effects. In other words, the Commission endeavors to put together a cogent theory of harm, whereby it is shown that the dominant firm has incentives to enter into a course of conduct, which will likely cause anti-competitive harm, in the view of the likely reactions of other firms.

Yet the Commission has also rejected the idea of incorporating an actual effects analysis into Article 102 TFEU, whereby it would need to show that competition has actually been harmed, i.e., that competitors have actually been foreclosed or excluded, to the detriment of consumers. Unfortunately, the ECJ has not yet endorsed the introduction of a likely effects analysis (as opposed to mere potential effects) into Article 102 TFEU. On the assumption that the view of the Commission will eventually prevail, it could paradoxically help to reduce the information deficiency risk in ex ante self-assessments by dominant firms. Indeed, ex ante it is easier for the dominant firm to measure the likely effects of its conduct, based on the information it has in hand, than to try to ascertain what the actual effect thereof will be. In the end, the information deficiency risk remains limited to information about third parties, and it is somewhat alleviated by the AEC test and a likely effects test.

3.4. Other risks relating to self-enforcement: assessment error by the firm

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77. Certainly if the assessment is to be made up to the legal evidentiary standards of competition law.
79. Deutsche Telekom, supra, note 75 at para. 202, and TeliaSonera, supra, note 26 at para. 44.
81. Ibid. at para. 20.
82. See, for instance, ECJ, Case C-202/07 P, France Telecom (Wanadoo) [2009] ECR I-2369 or Deutsche Telekom, supra, note 75.
83. Even though on substance dominant firms are probably better served by an actual effects test. Such a test is however hard to reconcile with the enforcement of Article 102 TFEU in practice: in most cases, it is not desirable to wait until the actual effects of dominant firm conduct have been felt before deciding on whether there is a breach of Article 102 TFEU (and certainly where injunctive relief is at stake).
The crux of the matter with self-enforcement, without doubt, is the risk of assessment error by the dominant firm, whereby the firm would not correctly understand what competition law entails. Firms could either fail to refrain from conduct which breaches Article 102 TFEU, in which case presumably competition authorities can intervene. What is more worrisome, however, is the opposite scenario, where a firm refrains from permissible conduct – in all likelihood pro-competitive – because it incorrectly assessed that such conduct would breach Article 102 TFEU. This fear of dulling the competitive edge of dominant firms underpins much of the US approach to § 2 of the Sherman Act, certainly as far as writers associated with the Chicago school are concerned. Under § 2 of the Sherman Act, it is generally admitted that the dividing line between pro- and anti-competitive conduct is thin and sometimes blurry. One need only think of price wars versus predatory pricing. Taken ad absurdum, the only way to reduce the risk of assessment error to zero is to refrain from enforcing competition law, i.e. adopt an interpretation whereby every course of conduct is deemed permissible. This would not be desirable, certainly not in the EU. Accordingly, assessment errors are unavoidable, and with them the ensuing loss of some competitive benefits from the conduct of dominant firms. It is more a matter of reducing them. In the EU, since reliance on self-assessment by dominant firms tends to increase the risk of assessment errors, one would expect a counter-balancing effort to keep competition law as understandable as possible, so as to limit the scope for divergent interpretations.

Unfortunately, current trends in the interpretation of EU competition law, and of Article 102 TFEU in particular, seem to point in the opposite direction. First of all, more economic analysis was introduced in the application of the law. Undoubtedly, this improves the substantive quality of outcomes. As a result, Article 102 TFEU is now better articulated, at a general, theoretical level, with references, for example, to the need for a theory of harm and the emphasis on consumer welfare. In this respect, it might be easier to understand. At the same time, the old formalistic categories have been upended, so that predictability might have been adversely affected overall. Here as well, there is a tradeoff between flexibility and certainty. By most accounts, recent reforms had a positive overall effect, but the loss of predictability remains.

Such loss is compounded, however, by a flight into soft-law instruments (guidelines, notices) and informal conclusions (by way of settlements or commitments), instead of case work. Whereas cases offer competition authorities the opportunity to battle-test their interpretation of the law, soft-law instruments are more in the nature of general

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84 This is not unlike the standard error-risk analysis set out earlier, but this time the source of error is not an information assymmetry as between the authority and the dominant firm or between the dominant firm and other firms, but rather a divergence regarding the interpretation of the law, between what would be entertained by the competition authority, taking into account review by courts, and what the dominant firm uses for its self-assessment.

85 Supra, heading 1.2.2.

86 As evidenced in the Guidance Paper, supra, note 6. However, with the lone exception of Post Danmark, supra, note 25, the ECJ has not endorsed the approach set out by the Commission in the Guidance Paper.

87 One should not be misled by comments from practice, which tend to request more flexibility when the law is formalistic and predictable, and then go on to bemoan the lack of legal certainty when the law becomes more responsive to individual circumstances. Here as well, taken ad absurdum, the only way to achieve both flexibility and certainty is to refrain from enforcing the law altogether.
policy statements, all the more when they are not based on experience with cases. They might not provide as much guidance to firms as intended by the issuing authority. It is crucial, if assessment risks are to be kept under control, that competition authorities continue to process cases, so as to test and sharpen their interpretation of the law, to the benefit of dominant firms, when they self-assess their conduct.

3.5. Conclusion

In the end, this second line of analysis of the continental drift in the treatment of dominant firms, which emphasizes the institutional dimension of competition law, provides a good explanation for the special responsibility of the dominant firm. On the assumption that markets are not self-correcting and therefore that some measure of enforcement of Article 102 TFEU is needed, one can justify, in the EU context, an enforcement approach which emphasize self-assessment by dominant firms. This matches the new approach to Article 101 TFEU enforcement. Against that background, the special responsibility of the dominant firm signals to dominant firms that they are expected to self-assess their conduct. Nevertheless, self-enforcement also creates error risks on the part of the dominant firm, having to do with information deficiencies or divergences in the interpretation of the law. While the former risk is alleviated by some features of Article 102 TFEU, the latter could be better contained.

The institutional line of analysis does, however, not provide a good explanation for other features of Article 102 TFEU, such as the emphasis on competition on the merits or the protection of the competitive process. Here we need to look further.

4. Innovation, dynamic efficiencies, the competitive process and competition on the merits

In US law, by and large, Chicago scholars have been influenced by the Schumpeterian vision of innovation as a gale of creative destruction. In essence, their main concern is that the application of antitrust law must not undermine the ex post rewards to innovators, for fear of undermining the ex ante incentives to innovate. When combined with the Chicago’s school typical concern for productive efficiency, this could imply, for instance in a high-tech sector where fixed costs (including R&D) are high and marginal costs, low, that competition on the market could be replaced by competition for the market.

The US Supreme Court seems to espouse a view of dynamic efficiency that comes very close to that of Chicago school authors. In this view, innovation is seen as a linear, stand-alone process: resources are invested, and innovation results as a function thereof, not unlike investment in infrastructure, for instance. Such

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investment must offer sufficient *ex ante* perspectives of reward if it is to be undertaken to start with. Since investment is a crucial element of dynamic efficiency, the law must be careful not to undermine these *ex ante* incentives. In *Trinko*, for example, Scalia J. famously wrote for the Court:

> The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices – at least for a short period – is what attracts ‘business acumen’ in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.

There is no comparable statement in the EU. European competition authorities are still building up case-law and decision practice in matters where innovation plays a central role, such as the recent *Microsoft* and *Intel* cases. The outcome of these cases already indicates that EU competition law is unlikely to follow the same approach to innovation as US antitrust law.

In any event, it could be argued that the US Supreme Court, and the authors who inspired its vision, have a too limitative view of innovation. Innovation cannot just be reduced to an investment. Instead, there are two separate elements in innovation, namely the idea or invention and its implementation, i.e. its successful introduction to the market. An idea alone does not make an innovation; it must be brought to the market. While investment might help on both counts, it is not the only determinant. This broader view of innovation sits well with the central elements of Article 102 TFEU protection of the competitive process, and competition on the merits.

### 4.1. Ideas are scarce and unpredictable – Protecting the competitive process

First of all, there is no given relationship between ideas and investment: ideas are often scarce, and will not necessarily be generated by investment. Ideas are unpredictable; they can, and often do, arise outside of well-planned efforts to produce them. *Ex post*, of course, a linear, stand-alone narrative can always be put forward,
but it would be mistaken to draw the conclusion that this is what must be incentivized \textit{ex ante}. Otherwise, competition law might be picking winners, at least indirectly, by being biased in favour of a certain innovation narrative, namely that of the large investor. \textit{Ex ante}, it is more realistic to envision that a number of firms will be vying for the next innovative step. Since it cannot be predicted which idea will successfully be brought to market (and increase welfare), \textit{all firms} need to be incentivized to innovate.\footnote{Of course, it is always possible that too much resources would be dedicated to R&D in pursuit of innovation, but we leave that possibility aside for now.} While firms are certainly incentivized by the prospect of innovation rents if they succeed, they also need to perceive that, among all firms competing to innovate, they stand a chance of succeeding.

When Article 102 TFEU is seen against that background, it is sensible to use that provision to try to protect the competitive process as a value in and of itself. If innovation by its nature cannot be predicted by the authorities, and cannot even reliably be produced by the most skilled and focused firms, the best that competition policy can realistically achieve is to maximize the innovation rate by ensuring that potentially innovative firms deploy their efforts.

In contrast with the ordo-liberal approach, which seeks to protect the competitive process against economic power, however, when the competitive process is protected for the sake of innovation and dynamic efficiency, it would seem logical to insist that the participants in the competitive process strive for innovation. While competition authorities are hardly in a position to rule on the validity or promise of R&D efforts, there is nonetheless an outer bound: firms that are merely seeking to copy or clone the products, processes or business methods of existing firms (‘copycat firms’) do not and cannot innovate. As such, claims by copycat firms are not deserving, from a dynamic perspective.

This view may explain why, in the law on refusal to deal under Article 102 TFEU, for instance, the plaintiff must show that it is seeking to bring a new product on the market, as is exemplified by the \textit{Magill},\footnote{ECJ, Case C-241/91 P, \textit{RTE} [1995] ECR I-743.} \textit{IMS}\footnote{ECJ, Case C-418/01, \textit{IMS} [2004] ECR I-5039.} and \textit{Microsoft}\footnote{Supra, note 92.} cases. In contrast to this line of case-law, however, in the \textit{Deutsche Telekom} price squeeze case, the ECJ has enshrined a principle of ‘equality of opportunity’ between firms under Article 102 TFEU, which could be read as a requirement that competitors be able to replicate the business strategy and methods of the dominant firm.\footnote{Supra, note 75 at para. 230 and ff. In that case, DT argued that the margin squeeze test was invalid, since the Commission compared the wholesale unbundled local loop price with the retail monthly subscription price, leaving out call charges. Since DT had not yet rebalanced its tariffs, it still entertained a low price for monthly subscriptions and high call charges. It was open to competitors, of course, to charge a higher subscription price and lower call charges. Leaving out call charges made the margin squeeze clear. In essence, the ECJ answered that argument with the principle of ‘equality of opportunity’, which must be read as implying that Article 102 TFEU will also protect the ability of the competitors of the dominant firm to compete with the exact same business model.} The ECJ read that principle...
beyond the narrow confines of previous case-law,\textsuperscript{102} and it is to be hoped that such principle will not develop further to allow copycats to invoke Article 102 TFEU in their favour.

4.2. \textit{Innovation implies the ability to bring the idea to the market – Competition on the merits}

Secondly, bringing the idea to the market is also not strictly linked to investment. There are other constraints, besides adverse investment incentives and the ensuing lack of investment, which can also explain why an idea does not unfold into an innovation. They include the inability to gain access to the market (on the supply side), which is discussed below, or rejection by prospective customers (on the demand side).

For competition policy, in order to provide appropriate incentives for competing firms to innovate, it is crucial that these firms have the ability to put forward new products and services to potential customers and have customers decide whether these new products and services meet their preferences. Here as well, this implies that, under Article 102 TFEU, competition policy focuses on keeping the competitive process open, including the ability to seek customers.

‘Competition on the merits’ takes a new dimension when seen from a dynamic perspective. Ordo-liberals drew a distinction between competition on the merits and other, presumably less meritorious, means of competing.\textsuperscript{103} From a dynamic perspective, competition on the merits can be seen as the ability to present new products and services to customers and have customers decide whether these products and services, as opposed to what is already on the market or to alternative novelties, find their favour. This is the essence of dynamic competition; if new products and services cannot find their way to the market, there is no innovation.

In this context, the merits should include all matters of improvement that are associated with innovation, regarding not only products and processes, but also marketing or business methods. Beyond that, to the extent that network effects play a role in customer decisions, is a firm still competing on the merits when it successfully harnesses network effects to make its products or services gain pre-eminence on the market? It takes considerable skill to do so, even if skill alone is usually not sufficient. Once network effects have propelled an ‘inferior’ product to supremacy – as has already happened many times – it seems beyond the power of competition authorities to reverse the course of events and restore a ‘level-playing field’ where products or services would ‘compete on their merits’.

In the context of Article 102 TFEU, fostering competition on the merits would imply that the law is applied so as to protect the competitive process and keep markets open for potential innovators. This requires careful balancing. For that purpose, it might be useful to think in terms of ‘innovation paths’, i.e. potential directions in which markets can go as a result of innovation. As a starting point, the task of competition

\textsuperscript{102} All the cases invoked by the ECJ, ibid., at para. 230 in support of this principle of equality of opportunity arose where the regulatory framework was at stake, and where the dominant operator was put at an advantage in the application of national regulation.

\textsuperscript{103} See supra, heading 1.2.2.
policy and competition authorities is not to close innovation paths, i.e. not to pick winners. Conversely, one could also argue that their task does not extend to opening new innovation paths; this would be more of a matter for R&D funding or industrial policy. Competition policy is there to keep existing paths open and ensure that the choice of path is made by those whose welfare is central to the whole enterprise, namely customers. Arguably, this reasoning underpins the rejection of Microsoft’s efficiency defence in the media player part of the case, where the General Court held that

[...] Microsoft is in fact claiming that the integration of Windows Media Player in Windows and the marketing of Windows in that form alone lead to the de facto standardisation of the Windows Media Player platform, which has beneficial effects on the market. Although, generally, standardisation may effectively present certain advantages, it cannot be allowed to be imposed unilaterally by an undertaking in a dominant position by means of tying.¹⁰⁴

At the same time, if the authority prevents a dominant firm from closing down innovation paths and taking choices away from customers, it is not clear what kind of remedy would be appropriate. In Microsoft, Microsoft was ordered to market a version of Windows without the media player included, next to the standard-issue Windows with an integrated media player, for the same price. That remedy, while creative, proved ineffective. In the subsequent case involving the integration of Internet Explorer into Windows,¹⁰⁵ the Commission required the introduction of a “browser choice” window into Windows. This might be more effective in ensuring meaningful customer choice, but at the same time it does fixate the browser/operating system articulation, at the expense of more integrative solutions.¹⁰⁶

More broadly, in cases such as Microsoft (interoperability information) or Intel, the Commission analysis and remedies aim at bolstering competition and keeping innovation paths open within the current value network of the market in question, to use the terminology of Christensen.¹⁰⁷ The Commission fosters sustaining innovation. Yet in practice the issues identified by the Commission were solved not so much through its competition remedies, but rather by disrupting innovation, which shattered the value network. For instance, the dominance of Microsoft in PC operating systems was rendered less consequential by the rise of browser-centred computing and cloud computing, as well as the shift away from PCs towards smartphones and tablets. That latter shift also dampened the effects of Intel’s dominance for x86 CPUs, since smartphones and tablets do not usually run on x86 CPUs. Similarly, there are signs that Google’s market power on the search engine market is being disciplined not so much through innovation on search engines, but rather through innovative methods to circumvent the search engine when linking users to content, for instance through apps on mobile devices or social networks such as Facebook or Twitter.

4.3. **Innovation and interaction between firms**

¹⁰⁴ *Supra*, note 92 at para. 1152.
¹⁰⁶ In other words, it is not totally neutral as far as innovation paths are concerned.
Thirdly, and consequently, innovation cannot always be perceived as a stand-alone, linear process. In many situations, innovation depends on the environment: sometimes it builds on previous innovations (cumulative innovation),\textsuperscript{108} at other times it arises out of complex interactions between a firm and its customers (user-driven innovation)\textsuperscript{109} or among firms and other entities (open innovation).\textsuperscript{110} These are the hard cases, where interaction between firms is part of the innovation process. Unavoidably, firms will disagree with one another in the course of such interactions, and one firm might try to gain an advantage over the others by affecting these interactions. In the context of Article 102 TFEU, this had led to decisions such as \textit{Magill, IMS} and \textit{Microsoft}, for instance, where a competitor requires access to some facilities, information or intellectual property of the dominant firm, alleging that this is necessary to enable it to innovate. The dominant firm claims that it is equally intent upon innovating, and that it should not be required to share with, or supply, its competitor.

Assuming an inverted-U relationship between competition and innovation, on the basis of the work of Aghion, Bloom, Blundell, Griffith and Howitt,\textsuperscript{111} which synthesizes the Schumpeter – Arrow debate, settling this claim could hinge upon whether the sector under inquiry finds itself in the ascending or descending part of inverted-U curve. In the former case, presumably increasing competition by imposing access will have a positive effect on innovation (and increase welfare), while in the latter case, it would not. Of course, finding out where a sector is on the inverted-U curve is no easy feat. In addition, if access to facilities or information is necessary to be able to compete at all, the claimant has in fact no or almost no prospect of any innovation rent, irrespective of the level of competition on the market. Under these circumstances, the assumptions underpinning the model of Aghion et al. are not even met.

In practice, when faced with this issue in \textit{Microsoft}, the Commission let it slip in its Decision that “on balance, the possible negative impact of an order to supply on Microsoft’s incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft)”\textsuperscript{112} The General Court disavowed this statement,\textsuperscript{113} and indeed this balancing test is too rough to be accurate. In the end, by ordering Microsoft to provide access, the Commission in fact reduced the cost of making a technological jump (even if the jump is also smaller, i.e. more incremental than breakthrough innovation) for Microsoft’s competitors. Yet there are not so many competitors. If the effect of the decision is to turn the market for server OSs into a neck-and-neck market, with a few competitors being at the same technological level, then in theory the market could become ‘sleepy’,\textsuperscript{114} unless still more competition is stimulated; it is not clear how a competition authority could achieve that.

\textsuperscript{108} A point upon which Scotchmer insists: supra, note 90 at 127 ff.
\textsuperscript{111} P. Aghion et al., “Competition and Innovation: An Inverted-U Relationship” (2005) 120 QJEcon 701.
\textsuperscript{112} Supra, note 92 at para. 783.
\textsuperscript{113} The General Court noted however that the Commission had provided ample other reasons why Microsoft’s argument on innovation incentives should be rejected: ibid., para. 705-710.
\textsuperscript{114} Within the meaning of Aghion et al., supra, note 111.
In particular, from the moment that a more interventionist stance is chosen when it comes to innovation and competition policy, competition authorities will find it very difficult not to affect the course of innovation, by pre-empting certain paths or even picking winners. In this respect, the first signals emanating from EU competition policy are not very encouraging. For instance, in cases such as Microsoft or Intel, the Commission could not manage to set out a cogent reasoning without making a negative judgment on the quality of the research efforts and the products of the dominant players Microsoft and Intel. Similarly, in Microsoft, the Commission decided that the level of royalties for the disclosed information should not reflect its strategic value, i.e. the use to which it can be put (obtaining or maintaining a presence on the server OS market). That principle was further developed in the course of implementing the Commission decision, as explained in a subsequent decision where the Commission fixed the periodic penalty upon Microsoft for having failed to implement the disclosure remedy on time. In the end, the rate of royalties was set to reflect the ‘intrinsic’ value of the intellectual property, which was a function of whether the property was innovative. Innovativeness was assessed by reference to criteria taken from patent law, i.e. novelty and non-obviousness. The Commission therefore put itself in the position of a patent office, ruling on the value of a firm’s efforts, and introduced the notion that intellectual property has an ‘intrinsic’ value which a competition authority can figure out.  

4.4. Conclusion

In short, once innovation and dynamic effects are taken seriously and integrated into competition analysis, central elements of Article 102 TFEU – the protection of the competitive process as such, competition on the merits – are infused with new meaning and significance. Nevertheless, as shown above, many fundamental issues are still open, and we are still far from a solid approach to innovation under Article 102 TFEU.

5. Excessive pricing revisited

In the previous sections, we explored alternative explanations for the three distinctive features identified as regards the implementation of Article 102 TFEU: the special responsibility of the dominant firm, the protection of the competitive process and the focus on competition on the merits. The European ‘outlier’ prohibition of exploitative abuses, in particular in the form of excessive pricing, still remains to be explained. As mentioned in Section 1, this category has been little enforced. In this section, we revisit it and suggest how it could be brought to life by recognizing the contradictions limiting the usefulness of ordo-liberal thought for this category, overcoming practical

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115 A competition policy which is geared simply to ensure that innovators can look forward to innovation rents, as in the US, will typically not result in much intervention.  
116 Decision of 24 March 2004 [2007] OJ L 32/23, at para. 1008 (ii). This is to avoid that the royalties received as a result of the compulsory disclosure would put Microsoft in the same position as if it had agreed voluntarily on disclosure.  
117 Microsoft (Fixation of Penalty Payments) [2009] OJ C 166/20, confirmed by the General Court, Case T-167/08, Microsoft (27 June 2012), nyr  
118 Ibid. at para. 138-151.  
119 It will be interesting to see if the same approach will be followed to solve the cases concerning the pricing of Standard-Essential Patents (SEPs) now piling up before the Commission.
objections, and applying more recent economic methods from the calculation of antitrust damages.

5.1. **Ordo-liberal contradictions and excessive pricing**

The treatment of exploitative abuses highlights a contradiction in ordo-liberal thought. As was seen in Section 2, ordo-liberals advocated outright intervention against economic power as such. Nevertheless, Eucken and others believed that some ‘unavoidable monopolies’ might remain. The starting point of the ordo-liberals was that this – presumably very limited – class of monopolists is to be regulated by a monopoly surveillance authority, with a view to making them behave ‘as if’ they were evolving in a competitive setting. This also implies that price-related conduct is controlled so that regulated prices approximate those that would materialize under perfect competition. Therein lies a contradiction that Eucken struggled with: while the freedom to set prices is a central tenet, ‘as if’ regulation substitutes regulated prices for freely-set prices. Regulated prices can hardly fulfill the signaling function of market prices. Eucken’s way of minimizing the contradiction was to restrict the ‘as-if’ regulation to that narrow set of unavoidable monopolies, all other manifestations of economic power having been uprooted.

Other ordo-liberal writers – in particular Leonhard Miksch, who invented the term ‘as-if’ – were less hesitant about regulatory intervention. As a starting point, Miksch considers that, while perfect competition might be the theoretical ideal, it is rarely achieved in practice. The task of the State is then to intervene in order to bring about the state of affairs which would have resulted if perfect competition would have prevailed: it is a matter of “finding a price that, firstly, does not depend from the will of the [dominant firm]; secondly, leads to rational production because of its relationship to production costs and thirdly, evolves in parallel to free-market prices.”

Once a system of abuse control was enshrined in the EEC Treaty in 1957, it was clear that a much larger number of dominant firms would be present than the original ordo-liberal ideas would have countenanced. Accordingly, the more interventionist approach advocated by Miksch took hold, without necessarily having been proven superior. Indeed, in essence the range of the ‘as if’ principle was extended to all dominant firms, irrespective of whether their position is ‘unavoidable’ or not. Article 102 TFEU was applied to dominant firms on the assumption that the behaviour of

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120 Supra, heading 2.4.
121 This was discussed as the third key proposition advanced by Eucken and Böhm in section 2.3. Here as well, Eucken (Grundsätze, supra, note 34 at 295) uses the term vollständige Konkurrenz, i.e. perfect competition in his typology of market forms.
122 Ibid. at 297.
123 A good summary of Miksch’s thinking can be found in L. Miksch, “Die Wirtschaftspolitik des Als-Ob” (1948-1949) 105 Zeitschrift für die gesamte Staatswissenschaft 311.
124 Ibid. at 331.
125 Ibid. at 321.
126 Ibid. at 333 (translated from the German original). Miksch recognizes that his point of view is more interventionist than that of other ordo-liberal authors (at 334). His concrete proposals for regulatory intervention, at 333-34, appear unrealistic, unless public authorities could somehow achieve complete information on firms and markets.
127 Supra, heading 2.4.
these firms should be analyzed, and remedies imposed on them, ‘as if’ they would evolve in a competitive environment. In the realm of pricing abuses, price-cost tests, aimed to assess the pricing of the dominant firm as against cost-based ‘as-if’ prices, became a fixation, as can be seen to this day in the application of Article 102 TFEU to predatory pricing, rebates or price squeeze.128

5.2. Practical objections against enforcing a prohibition on excessive pricing

However popular Miksch’s ‘as-if’ approach has proven as regards exclusionary abuses, the situation is different with exploitative abuses. In principle, under this approach, competition authorities should seek to bring the dominant firm to a price level corresponding to what it would entertain if it were active on a competitive market. But in practice, this has proven very difficult.

According to the ECJ, an excessive price within the meaning of Article 102 TFEU bears ‘no reasonable relation to the economic value of the product’. 129 That falls to be established by comparing the price with the production costs (cost-plus test), and then be determining whether the price is unfair by itself or in comparison with competing products (comparator test). 130 The cost-plus test is directly inherited from ordo-liberal thought; neither test is defined with any greater precision in the ECJ case-law.

The Commission has a mixed track record as regards excessive pricing under Article 102 TFEU, having lost two early cases before the ECJ. 131 Subsequently, the Commission brought few excessive pricing cases. Following a review of the decision practice of the Commission and of the British, Dutch and German competition authorities, Geradin concluded that excessive pricing cases are few and often unsuccessful. 132 The Commission and national authorities tend not to prioritize these cases, for a number of reasons: a belief – in line with US law – that excessive prices are self-correcting through market entry, methodological difficulties in ascertaining whether prices are excessive and a reluctance to enter into what is perceived as a price regulation exercise. 133

In recent times, a number of authors have sought to improve upon the United Brands test. 134 While their proposals differ on some points, they all insist upon the need to

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128 Even if Post Danmark, supra, note 25 might mark some progress in this respect, towards a general test applicable to pricing practices, it still remains a price-cost test. The ECJ refused to move the analysis of predatory pricing away from costs, and towards a focus on recoupment, in Wanadoo, supra, note 82. Similarly, in Case C-549/10 P, Tomra (19 April 2012), nyr, a judgment issued after Post Danmark, the ECJ reiterates its classic position on rebates, which are to be assessed by looking at cost savings against an ideal cost-based list price. Furthermore, in Microsoft, supra, note 117 the General Court approves an extension of this approach to the pricing of IP royalties, as advocated by the Commission.

129 United Brands, supra, note 7 at para. 250.

130 Ibid. at 251-252.


132 D. Geradin, “The necessary limits to the control of ‘excessive’ prices by competition authorities – A view from Europe” Tilburg University Legal Studies Working Paper (available on SSRN) at 43.


restrict enforcement to markets evidencing high barriers to entry; in that sense, these proposals attempt to limit the application of Article 102 TFEU rather than modify or replace the substantive test for excessive pricing.

5.3. Applying modern economics to determine ‘but for’ prices in excessive pricing cases

The price-cost test approach that stems from the ordo-liberal fixation on natural monopolies versus perfect competition is, however, only one of several methods developed in modern economics to determine so-called ‘but for’ prices, in particular in cartel damage litigation. Comparator-based methods are much more prominent in this area, including time-series analysis of the same market before and/or after the infringement, comparisons to a different but similar geographic market, and to a different but similar products.\(^\text{135}\)

In these methods, the key assumption is that the period or market to which a comparison is made can serve as a reasonable model for what competitive conditions in the market under investigation could have been, absent the anticompetitive behavior. The before-and-after method involves sophisticated econometrics in estimating, from actually observed prices and relevant additional explanatory variables, the ‘but for’ price development that would have occurred between endogenously determined structural breaks around the beginning and the end of the infringement period.\(^\text{136}\) Yardstick methods likewise can include a number of variables to control for any differences that might be present between the markets compared, besides the antitrust violation. An alternative approach to damages assessment uses structural industrial organization models for simulation analysis with calibrated parameters, which can endogenize the determination of costs.

While primarily developed in applications to cartel cases, these economic methods can, in principle, be modified rather straightforwardly for use in assessing the effects of abuses of dominance as well. Throughout its policy documents, the Commission has so far always maintained that damages claims were also available against exploitative abuses under Article 102 TFEU.\(^\text{137}\) Recently, the OECD organized a roundtable about the topic, on the observation that competition authorities are often hesitant to enforce, while direct exploitative abuses can cause extensive harm to consumers.\(^\text{138}\) In the lengthy background paper by the Secretariat, only slightly more


\[^{136}\text{A prominent example is B.D.Bernheim, Expert Report in RE: Vitamins Litigation, M.D.L. No. 1285, United States District Court for the District of Columbia, May 24 2002.}\]

\[^{137}\text{See for instance European Commission, Draft Guidance Paper on Quantifying harm in actions for damages based on breaches of Article 101 or 102 TFEU (June 2011) at 10, 50.}\]

\[^{138}\text{OECD, Policy Roundtable, Excessive Prices, Paris, October 2011.}\]
than one page, section 6.3, discusses the use of price comparisons to determine to what extent prices may be excessive. The main author of the OECD paper, Maier-Rigaud, also briefly mentions application to exploitative abuse cases in a recent survey paper on the quantification of antitrust damages.\textsuperscript{139}

These more contemporary methods, while developed primarily to deal with private damage claims for breaches of Article 101 TFEU, can very well be modified and applied to assess whether, and by how much, dominant firm prices are excessive. As the Commission itself notes,\textsuperscript{140} damage claims for excessive pricing in breach of Article 102 TFEU do not differ significantly from damage claims for overcharging in connection with a cartel, in breach of Article 101 TFEU. Nothing seems to stand in the way of the Commission itself applying these economic methods in Article 102 cases. Doing so may well revive public enforcement in this stale European outlier category. Indeed, as appears from the previous section, much of the unease with excessive pricing under Article 102 TFEU stems from the practical difficulty of applying what remains a fairly vague price-cost test, and from the more theoretical unease at the perspective of having to force the dominant firm to bring its prices down to the ‘right’ cost-based price, if and once it is identified.

The key to staying within ordo-liberal principle is to understand that the ‘but for’ comparator which authorities are ascertaining in excessive pricing cases is not perfect competition, but as any form of imperfect competition that would have prevailed without the abuse of dominance. In this sense, excessive prices are conceptually the same as cartel overcharges, with one important complicating factor. Whereas in cartel cases there typically are periods or geographically different but otherwise comparable markets, where there was no collusion, so that before-and-after or yardstick-methods can be applied, this may not always be the case in situations of dominance that are caused by structural characteristics, such as network effects.\textsuperscript{141} Yet, it is exactly here that the difference appears between natural monopolies and ‘garden-variety’ dominance cases: the latter, being the results of exclusionary practices, would potentially leave comparable competitive conditions to use as a basis for a ‘but for’ estimation.

In contrast, ‘natural monopoly’ markets typically have structural market characteristics, in particular large fixed costs in relation to the size of the market, such that optimal prices, even in the absence of information problems, cannot be found with the simple rule of thumb from perfect competition, i.e. price equals marginal costs.\textsuperscript{142} Yet despite these complexities in determining optimal price regulation of natural monopolies, this is a large and very active area of interference with actual markets, mostly via sector-specific regulation.

\textsuperscript{139} F. Maier-Rigaud and U. Schwalbe, “Quantification of antitrust damages”, in D. Ashton and D. Henry, Competition Damages Actions in the EU: Law and Practice (Edward Elgar, 2013). Meier-Rigaud refers to ECJ, Case C-226/84, British Leyland [1986] ECR 3263, as an example of a case where a comparison over time was made, albeit without any sophisticated analysis.

\textsuperscript{140} Ibid.

\textsuperscript{141} The OECD, in a best practice roundtable in October 2011, mentions but does not further develop this potential. See F. Maier-Rigaud, “Excessive Prices,” in OECD, Excessive Prices, OECD Best Practice Roundtables in Competition Policy, 2012, paragraph 6.3, pp.70-71.

Moving away from a reliance on the hypothetical ‘right’ price under perfect competition would overcome a key weakness in ordo-liberal thought. Indeed the starting normative aim for Eucken, Böhm and others is the absence of economic power on markets; that is a negatively formulated aim, which can be achieved by removing economic power, without encroaching on price mechanisms. The ‘as if’ approach goes beyond that negative aim; it rests on a positive norm, namely perfect competition. In the writings of Eucken and Böhm, while the negative aim (absence of market power) is solidly argued, the link with the positive aim (perfect competition) is less clearly made.¹⁴³ Not all authors agree with Eucken, indeed: later authors downplay the link between ordo-liberalism and perfect competition.¹⁴⁴ Furthermore, since these methods would be applied to historical data, with the aim to establish to what extend prices have been excessive in comparison to a relevant comparator, modeling a public enforcement practice in excessive pricing on them would stay a distance away from regulation. After all, damages claims are aimed at obtaining compensation for past overcharges, rather than regulating future conduct. In a finding of an infringement of Article 102 by an exploitative abuse of dominance, assessment of the ‘but for’ price could, but would not even need to be the base of the fine. It suffices as a foundation for the finding of an infringement. Private damages cases for the breach of 102 may follow and, based on the same principle methods, add to the liability of the infringing undertaking. In either case, the only effect going forward would be through the internalization of the possibility of future conclusions on excessive prices when a case might be brought, which will discipline undertakings by way of a deterrence effect, within the realm of the undertakings special responsibility.

The methods outlined above – save for cost-based methods – offer an alternative to the price-cost test. With these methods, the aim of the inquiry is not so much to identify the positively ‘right’ price, but rather to tease out, from available data, the effect of dominance on prices. This corresponds to the negative normative aim of ordo-liberalism, i.e. the absence of economic power. The effects of dominance are isolated, and to the extent that they constitute excessive pricing, a damage claim will be entertained.

6. Conclusions

Despite visible divergences in their wording, § 2 of the Sherman Act and Article 102 TFEU, like two tectonic plates, drifted away from the interpretation commonly attributed to them at the outset, in order to converge in substance on the policing of exclusionary conduct by dominant firms. Yet significant differences remain in their application in individual cases. These differences must be attributable to basic features of the analysis carried out under each provision. We have inventoried three such distinctive features of EU competition law, namely: the special responsibility of the dominant firm; the strong distinction between competition on the merits and impermissible forms of competition; and the protection of the competitive process even in the absence of proven consumer harm. A fourth feature appears from the text

¹⁴³ Eucken, *Grundsätze*, supra, note 34 at 246, asserts that ‘perfect competition’ is the optimal market form in a free market economy based on competition (*Wettbewerbsordnung*).
of Article 102 TFEU itself, namely the possibility to prosecute exploitative abuses of dominant position.

In this chapter, we sought to provide explanations for these distinctive features.

A first line of explanation, traditionally put forwards, is the influence of ordo-liberal thought (the Freiburg school) on Article 102 TFEU. The focus on the protection of the competitive process, the insistence on competition on the merits and the special responsibility of the dominant firm can all be traced back to ordo-liberalism. Yet Article 102 TFEU does not correspond to the model of direct intervention against market power advocated by ordo-liberals. It merely polices abuses, as opposed to market power as such.

Considering that the main works of ordo-liberalism date from the mid-20th century, it should come as no surprise that it suffers serious shortcomings. Beyond the sometimes exaggerated criticism leveled in the literature, it can be argued that, for instance, ordo-liberals were too quick to jump from a negative normative ideal of absence of market power, to a positive ideal of perfect competition. This implied that there was a ‘right’ price which dominant firms should charge, and accordingly the application of Article 102 TFEU became rife with price-cost tests. In the case of exploitative abuses, and especially of excessive pricing, this led to a marked reluctance on the part of competition authorities to entertain cases. Yet when re-examined in the context of private enforcement, with the help of newer economic tools to ascertain price overcharges, it no longer seems so odd that dominant firms would have to pay damages for excessive prices.

In the light of these gaps in ordo-liberal thought, it is worth looking at alternative lines of explanation.

A second line of explanation emphasizes the institutional dimension of competition law, and it provides a good explanation for the special responsibility of the dominant firm. The special responsibility of the dominant firm signals to dominant firms that they are expected to self-assess their conduct. This matches the new approach to Article 101 TFEU enforcement. Nevertheless, self-enforcement also creates error risks on the part of the dominant firm, having to do with information deficiencies or divergences in the interpretation of the law. While the former risk is alleviated by some recent developments in the interpretation of Article 102 TFEU, the latter could be better contained.

In order to explain the emphasis on competition on the merits or the protection of the competitive process, however, a third line of explanation is needed. It requires that innovation considerations be brought into Article 102 TFEU analysis. Innovation must be seen as more than a simple production function, depending on investment, but rather as a combination of novel ideas and successful implementation. Against that background, Article 102 TFEU can be seen as an instrument to ensure that markets remains open for all potential innovators, hence the need for enforcement to focus on keeping the competitive process open. Similarly, competition on the merits takes on a new meaning, since it is in the essence of dynamic competition that firms seek to compete on the strength of innovative products that they bring to the market.
Nevertheless, as the chapter shows, many fundamental issues are still open, and we are still far from a solid approach to innovation under Article 102 TFEU.

The following table sums up our analysis:

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<th>Ordo-liberalism</th>
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<th>Innovation</th>
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<td>Special responsibility of the dominant firm</td>
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<td>Competition on the merits</td>
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<td>Protection of the competitive process</td>
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Accordingly, the features identified above can be explained otherwise than strictly through ordo-liberal thought. Still, this does not imply that ordo-liberalism is superfluous to the understanding of Article 102 TFEU. At an even deeper level, the interpretation and enforcement of Article 102 TFEU – and to some extent EU competition law as a whole – assumes that markets are fragile, that they are vulnerable to both public and private economic power. This is the starting point of ordo-liberal thought, and it stands in contrast with the more confident attitude displayed throughout US antitrust law nowadays. EU competition authorities and courts are skeptical of the robustness of markets and their ability to self-heal. At this juncture, there is no conclusive evidence to support or infirm either the US or the EU basic assumption, and maybe there never will.